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Intestinal Coccidiosis of Chickens

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How To Control It

How chickens get it
What to look for
Getting a diagnosis
Handling an outbreak
Prevention

Leaflet No. 402

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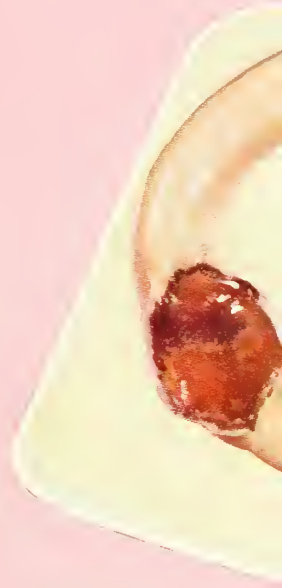
Intestinal Coccidiosis of Chickens

How To Control It

Intestinal coccidiosis of chickens is caused by several species of coccidia,¹ which are microscopic parasites. This disease may strike chickens at any time of the year, but it is most likely to develop during warm, wet weather.

It may affect chickens of any age, but costly losses most often occur in flocks of young pullets.

Usually the death rate is not high, and some of the diseased chickens recover quickly. The economic loss to poultrymen is due primarily to the slowness with which the remaining diseased chickens recover; laying flocks may be unprofitable for weeks.



Intestines of a chicken infected with *Eimeria necatrix*. Wall of intestine cut open to show contents.

● How chickens get it

The parasites pass from chicken to chicken—by way of soil, litter, feed, or drinking water.

A chicken may pick up and swallow enough infective coccidia to cause a serious case of the disease. Or it may pick up only enough to cause a light infection.

A light infection usually does little or no harm. It helps the chicken to build up resistance to the particular species of coccidia that causes the infection. If the chicken picks up large numbers of coccidia of the same species later on, it may be less seriously affected than it would be otherwise.

A chicken that has intestinal coccidiosis—either a heavy or a light infection—passes coccidia in its droppings; it continues to pass them long after it recovers. The coccidia become infective a few days after they are passed. They remain infective for several months.

¹ Usually the disease is caused by one of four species—*Eimeria necatrix*, *E. brunetti*, *E. maxima*, and *E. acervulina*—or by a combination of two or more of these. Three other species that occur in the intestines rarely cause disease.

Coccidia may be carried from place to place by birds, by animals such as rats and mice, and by certain insects, including the house fly. The attendant may carry them on his hands or clothing. They may also be carried on crates and litter and by strong winds.

● What to look for

Symptoms of intestinal coccidiosis usually develop slowly throughout a flock. Watch for the signs of sickness listed below.

Condition of chickens.—Loss of appetite, loss of weight, weakness, ruffled or soiled feathers, pale combs and wattles, huddling together.

Suspect the disease in *pullets* if there is an abnormal drop in egg production.

Droppings.—Watery or slimy, and greenish or brownish; or consisting of bloody mucus.

Intestines.—Take a chicken that has just died, or kill one of the sickest ones, and examine its intestines.

Evidences of this disease in the intestines vary with the species or combination of species of coccidia that causes the infection.

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Intestines of a chicken infected with *Eimeria necatrix*. Wall of small intestine cut open to show bloody contents.

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Signs of infection by *E. necatrix*, one of the most injurious species, are:

Small intestine distended; the degree of enlargement may range from slight to great.

Contents of small intestine consist of fresh blood or red, jellylike material.

Intestinal walls thickened.

Pinhead-size, white and red spots on outside of walls. On inside, walls are reddened and streaked with blood.

The photograph above shows the appearance of the intestines of a chicken infected by *E. necatrix*. The photograph has been printed in color because the signs of infection cannot be distinguished in a black-and-white reproduction.

Signs of infection by other species include:

Small intestine filled with thick gray, green, or brownish mucus.

Large intestine filled with cheeselike material. Inside of intestinal walls thickened, streaked with blood, or marked with numerous white crosswise bars.

Narrow parts of the ceca (blind guts) contain short plugs of cheeselike material.

● Where to get a diagnosis

If any of the signs of sickness that have been listed appear in your chickens, usually the best thing to do is to take or send 2 or 3 sick chickens to the nearest poultry-diagnostic laboratory. At such a laboratory, a poultry-disease expert will examine the chickens for the presence of the parasite. He will tell you whether the chickens have intestinal coccidiosis or some other disease.

If you do not know where to take or send the chickens, ask your county agent or a veterinarian.

You may be able to tell for yourself whether your chickens have intestinal coccidiosis if: (1) You have had outbreaks before diagnosed as intestinal coccidiosis caused by one particular species and have examined the intestines of several affected chickens; and (2) you now recognize these same signs in the intestines of other chickens.

● How to handle an outbreak

The sooner intestinal coccidiosis is diagnosed and treatment begun, the better your chances for keeping losses low. Expect some losses, however. Without waiting for a diagnosis, remove the sick chickens to a clean pen. If the sickness is one that passes from chicken to chicken, you may halt or slow its spread.

If the disease is intestinal coccidiosis, take the following steps.

1. Dose all chickens immediately with sulfamethazine, sulfaquinoxaline, or sulfaguanidine. You can usually buy these drugs at stores or mills that sell chicken feed; some drugstores carry them.

Prepare and administer the drug exactly according to directions that come with it. If you give more than the amount recommended, you will harm the chickens; if you give less, the drug will do little good.

2. Keep the litter dry and loose. Remove all wet litter and replace it with dry. Stir the litter frequently. Repair or replace waterers that leak.

By keeping the litter dry, you keep many of the coccidia present from becoming infective. By stirring the litter, you turn under many of the coccidia or allow them to fall beneath the surface, where the chickens are not so likely to pick them up.

3. If more chickens get sick, remove them from the flock. This will rid the flock of a constant source of infection.

● Prevention

Control depends on prevention. Constant good management is the chief preventive measure. This may be supplemented by well-timed administration of preventive drugs.

Good management

Certain good-management practices will enable you to reduce the number of infective coccidia that the chickens may pick up.

✓ Keep chickens in clean, dry quarters.

✓ Keep feed and water in clean utensils; place the utensils on wire or slat platforms. Raised utensils are not so likely to become contaminated from droppings or litter. Wire or slat platforms screen the chickens from the droppings that accumulate around feeders and waterers.

✓ Give chickens enough space in which to exercise. The more space allowed, the fewer coccidia per square foot of litter or ground.

✓ Get rid of all flies, rats, and mice around poultry houses and yards. They can carry coccidia into these places from infected areas.

Preventive drugs

You can lessen the chances of chickens developing severe cases of intestinal coccidiosis by giving them prescribed dosages of sulfaquinoxaline, sulfaguanidine, nitrophenide, or nitrofurazone.

A preventive drug is fed in small amounts, continually over a period of several weeks. Prepare and administer it according to the directions that come with it.

Such a drug is preventive only as long as it is being given. However, the benefit may extend beyond the discontinuance of the drug—the chickens may pick up enough infective coccidia while protected by the drug to become resistant.

To use a preventive drug most effectively, give it to chickens at times when serious outbreaks are most likely to occur. Three such periods are:

When chickens are placed on ground or litter.

Feed drug for 4 or 5 weeks, or until chickens are 8 or 9 weeks old.

During long, wet spells. Feed drug to young, growing birds for 2 or 3 weeks.

When pullets are moved into laying houses in the fall. Feed drug for 2 or 3 weeks.

By Marion M. Farr, Animal Disease and Parasite Research Branch, Agricultural Research Service
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